DOCUMENT RESUME

ED 384 284 HE 028 396

AUTHOR	Springer, Leonard; And Others
TITLE	Do White Students Perceive Racism toward Minority Students on Predominantly White Campuses?
INSTITUTION	National Center on Postsecondary Teaching, Learning, and Assessment, University Park, PA.
SPONS AGENCY	Office of Educational Research and Improvement (ED), Washington, DC.
PUB DATE	22 Apr 95
CONTRACT	R117G10037
NOTE	31p.; Paper presented at the Annual Meeting of the American Educational Research Association (San Francisco, CA, April 18-22, 1995).
PUB TYPE	Reports - Research/Technical (143) -- Speeches/Conference Papers (150)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	College Freshmen; College Sophomores; Higher Education; Institutional Characteristics; Longitudinal Studies; *Minority Groups; Models; National Surveys; *Racial Bias; Racial Relations; Sex Differences; *Social Cognition; Social Experience; *Student Attitudes; Student Development; *White Students
IDENTIFIERS	*Diversity (Student); *National Study of Student Learning

ABSTRACT

This study tested a causal model of influences on white students' perceptions of racism toward minority students on predominantly white college campuses. The study was part of the National Study of Student Learning and utilized a three-wave, longitudinal design. The institutional sample consisted of 11 traditional institutions in 9 states. The study surveyed students before starting their first year of college, after their first year, and after their second year. Of the original 2,137 students who participated in the first survey, 1,200 completed the final survey. Results suggested that white students' background, their attitudes toward diversity, the types of institutions they attended, and their behavior during college all affected their perceptions of racism toward minority students on campus. Students who were more open to diversity before college were more likely to make friends with students of other races and discussed social issues with greater frequency. Significant differences between men and women were found in openness to diversity before college, perhaps reflecting the less favorable attitudes toward diversity among "angry white men" in the broader society during the early 1990s. White students' perceptions were shaped directly and most significantly by their openness to diversity before starting college and by the undergraduate racial mix at the institution they attended. (Contains 45 references.) (JB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

OCE Research Program
Project 2
Deliverable 2

DO WHITE STUDENTS PERCEIVE RACISM TOWARD MINORITY STUDENTS ON PREDOMINANTLY WHITE CAMPUSES?

ED 384 284

by

Leonard Springer
Research Assistant
National Center on Postsecondary Teaching,
Learning, and Assessment
The Pennsylvania State University
403 South Allen Street, Suite 104
University Park, PA 16801-5202
BITNET: LXS20@PSUVM
INTERNET: LXS20@PSUVM.PSU.EDU

Patrick T. Terenzini
Professor, Senior Scientist, and Associate Director
National Center on Postsecondary Teaching,
Learning, and Assessment
The Pennsylvania State University

Ernest T. Pascarella
Professor and Director
National Study of Student Learning
National Center on Postsecondary Teaching,
Learning, and Assessment
University of Illinois at Chicago

Amaury Nora
Associate Professor and Senior Research Associate
National Study of Student Learning
National Center on Postsecondary Teaching,
Learning, and Assessment
University of Illinois at Chicago

HE028 396

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

The authors thank Marylee C. Taylor, Associate Professor, Department of Sociology, The Pennsylvania State University, for useful suggestions.

Paper presented at the meeting of American Educational Research Association, San Francisco, CA, April 1995.

The National Center on Postsecondary Teaching, Learning, and Assessment is funded by the U.S. Department of Education, Office of Educational Research and Improvement (OERI) under Grant No. R117G10037. The opinions herein do not necessarily reflect the position or policies of OERI, and no official endorsement should be inferred.

Project No. R117G10037
CFDA 84.117G

BEST COPY AVAILABLE

DO WHITE STUDENTS PERCEIVE RACISM TOWARD MINORITY STUDENTS ON PREDOMINANTLY WHITE CAMPUSES?

Nearly a decade ago, Loo and Rolison (1986) observed that the national goal of providing racial and ethnic minority students with equal opportunities for academic success in higher education had yet to be realized. Reports since that time have documented a resurgence of overt hostility against racial and ethnic minorities on campuses throughout the country (e.g., Altbach, 1991; Ehrlich, 1992; Farrell & Jones, 1988; Steele, 1989). For example, Ehrlich's (1992) research for the National Institute Against Prejudice and Violence indicated that up to 22 percent of minority students (i.e., those categorized as racial or ethnic minorities) report victimization from prejudice or discrimination—or racism (which encompasses either or both). Moreover, the proportion of group members experiencing related distress can extend to 60 percent and the vast majority of students affected do not report these incidents to any campus official.

Researchers on how college affects students increasingly document the relationships between racism and diminished academic performance (e.g., Nettles, 1988; Nettles et al., 1986), reduced degree persistence (e.g., Arbona & Novy, 1990), and alienation from the institution (e.g., Cabrera & Nora, 1994; Hurtado, 1992; Smith, 1989). Furthermore, racism need not be overt to have detrimental consequences. Avoiding or isolating minority group members represents a common form of racism in the U.S. (Gaertner & Dovidio, 1986). Indeed, based on a recent national survey, Hurtado, Dey, and Treviño (1994) concluded that the pervasive lack of cross-race interaction at predominantly white colleges and universities can primarily be attributed to the preferences of white students.

Clark Kerr observed in 1991 that "Racism is a problem of all American society, not of higher education alone; yet higher education is now on the front lines of the conflicts as were

once the buses, the lunch counters, the city streets, the factory employment offices" (p. viii). Education, including higher education, "has been the chief line of advancement for . . . [racial and ethnic] minorities, and they know this" (p. ix). "Minority" populations continue to increase dramatically in the United States. Census Bureau estimates indicate that by 2000, one-third of the nation's population will be comprised of minorities. In 1980, the proportion was only 15 percent. By 2050, it could reach 45 percent and, by 2080, more than 50 percent. The long-term economic welfare of the country depends upon increasing educational attainment among African American or black, Asian American, and Hispanic or Latino populations, and upon closing the gaps in social, political, and economic opportunities between majority and minority group members (Commission on Minority Participation in Education and American Life, 1988).

Differences in perceptions of racism toward minority groups clearly impede the goal of providing equal opportunity. Media reports, electoral results, and legislation increasingly reflect the perception of "reverse discrimination," especially among "angry white men." Affirmative action programs have become popular targets despite growing evidence of their success (Taylor, in press). Moreover, a recent nationwide survey indicated that only one white person in ten believes that African Americans or blacks encounter discrimination in getting skilled jobs or fair wages, and that the odds are little better than fifty-fifty that a white person can think of even one type of discrimination from which blacks in their area suffer. In contrast, about 60 percent of blacks reported experiencing discrimination in at least one of four domains: getting an education, obtaining housing, getting a job, or receiving equal wages. Furthermore, most black respondents perceived increased racism among whites from 1986 to 1989, while most whites perceived that white racism was constant or lessening (Sigelman & Welch, 1991).

Although a great deal of social-psychological research has addressed issues of prejudice, discrimination, and racism, surprisingly little has focused on college students outside of laboratory settings. Research on racism in higher education outside the laboratory has generally been descriptive, primarily identifying correlations among large numbers of variables rather than

explaining relevant dynamics. Moreover, analyses have frequently mixed types of variables without considering how they interrelate. Studies have indicated that certain experiences, such as participating in a racial awareness workshop, affect diversity-related attitudes and behavior—but have not consistently distinguished among variables, such as time spent discussing social issues, that might reflect *how* and *why* experiences have an impact. Furthermore, studies have not consistently distinguished between prejudice and discrimination against oneself and that against others, nor between self-reported gains in interracial awareness and gains in interracial awareness evaluated by other methods. Despite increasing documentation of gaps in perceptions of racism on college campuses, very few studies have explored what shapes those perceptions among white students, particularly among students attending traditional (i.e., predominantly white, four-year, residential) institutions—the setting for a great deal of recent interracial conflict (Ehrlich, 1992). Therefore, in addition to assessing white students' perceptions of racism toward minority students on these campuses, this study tests a model of the processes though which their perceptions are shaped.

CONCEPTUAL FRAMEWORK

This study initially draws upon conceptualizations of college impact that stress the importance of students' peer relations in the process of socialization (e.g., Astin, 1984, 1993b; Chickering, 1969; Feldman & Newcomb, 1994; Newcomb, 1962; Pascarella & Terenzini, 1991; Tinto, 1987; Weidman, 1989). Weidman (1989) recommended that researchers of college impact be concerned with "identifying and operationalizing the specific social and interpersonal mechanisms that transmit and mediate the influences of the college environment" (p. 293). Toward that end, this study employed a conceptual model based on more than 40 years of research on intergroup contact.

Figure 1 suggests that societal factors (e.g., the national political climate, patterns of racial segregation) influence situational (e.g., opportunities for interracial contact within institutions) and

individual (e.g., openness to diversity) factors. Situational and individual factors, in turn, interact with one another. Further, the model specifies that intrapersonal processes (i.e., various beliefs, feelings, and motives that affect attitudes and behavior) mediate the effects of the situational and individual factors on changes in individuals. Finally, the model hypothesizes that changes in individuals can lead to changes in society (Stephan, 1987, p. 21).

Place Figure 1 about here

Researchers on intergroup contact increasingly suggest that changes in individuals and institutions are mediated by cognitive, affective, and motivational processes. Cook (1984), for example, investigated work-study interactions on a Southern college campus to determine, first, whether attitudes of prejudiced white students changed after they made friends with a black co-worker. After determining that such was the case, he studied whether (and if so, how) the more favorable attitudes generalized to other blacks. Cook concluded that generating affective ties and providing information about how egalitarian social policies reduce racism did, indeed, result in greater racial awareness and more favorable attitudes toward blacks in general. Based on a multinational survey, Pettigrew (1994) concluded, similarly, that "optimal contact does not just result in a cognitively more accurate picture of the outgroup; it can also generate close affective ties" (p. 18). He proposed that researchers simplify a vast array of potentially mediating intrapersonal processes to three: (1) learning about the outgroup, (2) generating affective ties, and (3) reappraising the ingroup (pp. 21-22).

With survey research in general, issues related to intergroup friendships appeared more ambiguous, however. A major nationwide survey conducted during the 1970s found that the racial views of white persons whose circle of friends included a black person closely paralleled the views of whites with no black friends (Jackman & Crane, 1986). Analyses of national surveys conducted in 1981 and 1986 also indicated no significant correlation between interracial friendship

and blacks' and whites' perceptions of prejudice against blacks (Sigelman & Welch, 1991). Analysis of a comparable survey conducted in 1989, however, indicated that interracial friendships correlated significantly with more favorable racial attitudes of both white and black respondents (Sigelman & Welch, 1993).

Similarly, recent studies on how college affects students have indicated that interracial friendships and discussions of social issues might mediate changes in college students' openness to diversity on campus. Based on surveys from the early 1990s, Pascarella et al. (1994) reported that "the more students interact with diverse peers, and the greater the extent to which such interactions focus on controversial or value-laden issues that may engender a change in perspective or opinion, the greater one's development of openness to diversity . . ." (p. 18). Analyses based on surveys from the late 1980s also indicated that more favorable racial attitudes or self-reported gains in racial awareness were associated with discussing racial or ethnic issues and socializing with individuals from different racial or ethnic groups (e.g., Astin, 1993a, 1993b; Hurtado, 1990; Hyun, 1994; Milem, 1992). Research is needed, however, to assess the impact of interracial friendships and discussions of social issues on perceptions of racism on campus.

In keeping with the conceptualization of intergroup contact in Figure 1 and based on the investigations reviewed above, this study tests a causal model of influences on white students' perceptions of racism toward minority students on predominantly white campuses. The model proposes that students' backgrounds affect their racial attitudes and choice of college. Both students' attitudes and their opportunities during college are hypothesized to lead them to make certain friendships and to be more or less likely to discuss social issues such as employment, wealth, social justice, and human rights. More interracial friendships and discussions of social issues are hypothesized to result in perceptions of racism toward minority students on campus that are more congruent with the perceptions of the minority students.

METHODS

A three-wave, longitudinal design was employed for this investigation—part of a multi-institutional, National Study of Student Learning (NSSL). Researchers for NSSL collected data to represent all colleges and universities in the United States. The target population of institutions for this secondary analysis (of data not collected specifically to address the title question) was the nation's predominantly white, four-year, residential colleges and universities because most of the recent interracial conflicts on postsecondary campuses have occurred in this setting (e.g., Ehrlich, 1992).

Institutional sample

The institutional sample consisted of 11 traditional institutions (i.e., more traditional than community colleges or institutions with no on-campus living arrangements) located in 9 states. Colleges and universities were selected based on the U.S. Department of Education, National Center for Education Statistics Integrated Postsecondary Education Data System (IPEDS), comprised of data from annual surveys of the nation's 10,500 postsecondary educational institutions.

The sample represented nationwide differences in these institutions on a variety of characteristics reflected in IPEDS data (e.g., location, size, governance, degree-granting status, racial and ethnic composition). Five colleges or universities were located in the Midwest, three in the West, two in the East, and one in the South. Undergraduate enrollments in the sample in Fall 1992 ranged from approximately 1,000 to more than 25,000. The proportion of white students in the sample at that time ranged from 58% to 97%. Five institutions were public; six private. Two of the private institutions were bachelor's-granting, liberal arts colleges. Of the remaining nine institutions, four were master's-granting colleges and five were research universities.

Student sample and instruments

The student sample for this study was designed to represent the population of first-year undergraduates at traditional institutions of higher education in the United States in Fall 1992. Table 1 summarizes students' targeted and actual participation. In Summer 1992, an administrator at each of the 11 participating institutions was given a target sample of eligible students at the college or university at which he or she was employed. The total number of eligible students was 11,975. Administrators were asked to select 2,515 (21.0%) of these students at random to achieve the target sample. Of the selected students, 2,137 (85.0%) participated in the Fall 1992 data collection—before starting their first year of college. In Spring 1993, after their first year, 1,604 (75.1 percent) of those students participated in the first follow-up data collection. In Spring 1994, after their second year, 1,200 (74.8%) of those students participated in the second follow-up. The racial or ethnic composition of the sample did not differ significantly from that of the target population. Table 2 lists percentages of the 1,200 Spring 1994 participants by race or ethnicity.

Place Tables 1 & 2 about here

The initial data collection in Fall 1992, before students started college, lasted about three hours. Students were informed that they were participating in a study of student learning and that they would be paid a stipend of $25 for their participation. They were also advised that the information they provided would remain confidential and not become part of their institutional records. A precollege survey form gathered information on students' demographic characteristics and attitudes toward learning during college. Follow-up data were collected in Spring 1993 and 1994, after students' first and second years of college. Each follow-up lasted about three and one-half hours and students were paid additional stipends of $35 for each follow-up in which they participated. Follow-up surveys included Pace's (1984) College Student Experience Questionnaire (CSEQ) and forms designed to assess aspects of students' collegiate experiences not covered by

the CSEQ. One of these forms assessed students' perceptions of racism toward minority students on campus.

Variables

Nine variables, from three data collections, were included in the model. Table 3 lists the variables, their means and standard deviations, and the date they were collected. Precollege variables included measures of students' sex, their family's income, their parents' education, the racial composition of the neighborhood in which they grew up, the percentage of white undergraduates at the college or university in which they were enrolled, and a scale tapping their openness to diversity. The frequency with which students made friends with student peers of a different race during the 1992-1993 academic year was assessed during the Spring 1993 follow-up data collection, as was the frequency with which they discussed social issues. Perceptions of racism toward minority students on campus during the 1993-1994 academic year were assessed in Spring 1994. Variables from three data collections were chosen so the temporal order in the causal model would be unambiguous.

Place Table 3 about here

Three scales were developed through exploratory factor analysis (principal components, varimax rotation) of a number of items reflecting students' attitudes, behavior, and perceptions. Factor loadings and scale reliabilities (Cronbach's alpha) are listed in Table 4. Perceptions of racism were assessed with a 4-item Likert-type scale (5 = strongly agree to 1 = strongly disagree). The perceptions of racism scale reflected students' perceptions of prejudice and discrimination against minority students on campus during the 1993-1994 academic year. The scale labeled "openness to diversity" consisted of 2 items on a 5-point scale that reflect students' attitudes toward diversity on campus before they started college in 1992. This scale constituted part of a

measure of "openness to diversity and challenge," an 8-item scale previously derived by Pascarella et al. (1994). Openness to diversity, as operationalized in this study, reflected the importance students placed on interacting with diverse peers and learning about other cultures as part of their collegiate experiences. Although the term "openness" might suggest passivity on the part of students, the scale also reflected students' desires to seek out diversity-related activities. The scale labeled "discussing social issues" consisted of 2 items on a 4-point scale (4 = very often to 1 = never). These items constituted part of the CSEQ's "topics of conversation" scale, and reflected the frequency with which students talked about issues such as employment, wealth, social justice, and human rights with their student peers during the 1992-1993 academic year. To facilitate interpretations of the scale scores, unweighted scales were computed by summing the scores of individual items and dividing by the number of items.

Place Table 4 about here

Data analysis

Data analysis proceeded in three stages. First, differences between group means were assessed with *t*- tests to determine whether the mean perception of racism toward minority students on campus was significantly different between white students and selected groups of minority students. Second, coefficients in the model were estimated with ordinary least-squares regression. This analysis required the solution of six structural equations in which each endogenous variable was regressed on all exogenous variables (i.e., sex, parents' education, family's income) and all other causally antecedent endogenous variables in the model. The results of these structural equations yielded standardized regression coefficients, which were interpreted as direct effects. Third, to determine whether the direct effects of each variable differed significantly in magnitude by sex, the measure of perceived racism was regressed on all antecedent variables plus a set of

interaction terms (cross-products of sex and each predictor). A significant cross-product would indicate a significant difference in the magnitude of the regression coefficient by sex.

RESULTS

Table 5 presents the results of *t*- tests indicating that the group mean of white students was significantly lower than the group mean of African-American students ($p<.001$). Group means of perceptions of racism toward minority students on campus among white, Asian-American, and Hispanic or Latino students were not significantly different, however.

Place Table 5 about here

Figure 2 presents the results of the path analysis modeling influences on white students' perceptions of racism toward minority students on campus. The model explained about seven percent of the variance in the outcome measure ($R^2 = .07$). White students who discussed social issues and made friends with students of other races with greater frequency during their first year of college had perceptions more congruent with African-American students by the end of their second year. Discussing social issues had a direct effect on their perceptions of racism ($p<.05$).

Place Figure 2 about here

Female students ($p<.001$), students with more educated parents ($p<.001$), and students from more racially mixed neighborhoods ($p<.05$) scored higher on the openness to diversity scale (reflecting their attitudes) before they started college. Students' attitudes, in turn, directly affected the frequency of their interracial friendships ($p<.01$) and discussions of social issues ($p<.001$), and also had a direct effect on their perceptions of racism toward minority students on campus ($p<.001$). Students with greater family income tended to grow up in neighborhoods with fewer

minorities ($p<.001$) and subsequently to attend colleges with fewer minority students ($p<.001$). Attending a college with fewer minority students directly and negatively affected the frequency of interracial friendships among white students ($p<.001$) while directly and positively affecting their perceptions of racism toward minority students on campus ($p<.001$). None of the cross-products proved significant, indicating no difference in the influence of the variables in the model by sex.

Limitations

This study is limited in several ways. Of greatest importance, the data analyzed were not collected specifically for this investigation. Thus, as with all secondary analyses, operational definitions of model constructs were limited by the available data. Perceptions of prejudice, discrimination, and racism are complex phenomena that can differ significantly by racial or ethnic groups (Cabrera & Nora, 1994; McNeilly et al., in press). Likert scales designed for one group are not necessarily applicable to other groups (McIver & Carmines, 1981, p. 28). More differentiated measures of attitudes toward various specified racial or ethnic groups, types of intergroup contact before and during college, and perceptions of racism might have intensified the model's explanatory power, as reflected in the explained variance.

The rather modest explained variance might also be attributable to the possibility that the model is missing one or more important explanatory concepts. Including measures of perceptions of racism at the end of the first year of college and measures of behaviors and attitudes during both the first and second years would likely have produced a more comprehensive analysis, as would including the geographic region of the institution and related structural variables (had the institutional sample been larger). Although the model was specified parsimoniously to reflect a clear temporal order, the inclusion of synchronous (same year) as well as lagged (prior year) effects might have resulted in a more realistic reflection of actual processes. Because the model will be respecified to assess influences on *changes* in perceptions among students, and to reflect

relationships among latent rather than manifest (or overt) variables, indirect effects, total effects (the sum of direct and indirect effects), and their significance were not calculated for this study.

Limitations in the institutional and student sample also have a bearing on interpretations of the data. Although the sample is multiinstitutional and representative of a fairly broad range of traditional colleges and universities in the U.S., the sample is too small to generalize conclusion to all such institutions with a great deal of confidence. Similarly, the student sample undoubtedly reflects some self-selection (as clearly indicated by the proportion of women surveyed). Students who participated in the second follow-up study might not necessarily have represented the backgrounds, attitudes, behaviors, and perceptions of those who left the institution or those who chose not to participate for other reasons.

DISCUSSION AND CONCLUSIONS

Despite these limitations, the study has important implications for higher education researchers and practitioners. The results suggest that white students' backgrounds, their attitudes toward diversity, the types of institutions they attended, and their behavior during college all affect their perceptions of racism toward minority students on campus. Of greatest importance, the model presented in Figure 2 clarifies the *processes* through which different perceptions were shaped. White students' perceptions were shaped directly and most significantly by their openness to diversity before starting college ($p<.001$) and the undergraduate racial mix at the institution they attended ($p<.001$).

Although measures of parents' education and family income were correlated significantly ($p<.001$), the variables had notably different types of effects within the model. Students with more educated parents were significantly more open to diversity as part of their collegiate experiences. A great deal of research indicates that higher education liberalizes attitudes and values (e.g., Feldman & Newcomb, 1994; Pascarella & Terenzini, 1991). Some analysts have suggested that the childhood socialization practices of more highly educated generations of white Americans

have contributed to a general liberalizing of racial attitudes during the second half of the twentieth century (e.g., Steeh & Schuman, 1992). Others (e.g., Guimond & Palmer, 1989; Sidanius et al., 1991), however, have suggested that higher education only liberalizes intergroup attitudes within certain career tracks (such as the social sciences or humanities) or that higher education affects attitudes toward abstract principles of equality but does not necessarily have implications for changes in specific policies (Jackman & Muha, 1984). This study did not assess the attitudinal or behavioral *consequences* of different perceptions of racism nor the effects of different career tracks. Future research might address these issues in greater detail.

Family income did not have a significant direct effect on students' openness to diversity, but significantly and positively affected their assessments of the racial diversity of the neighborhood in which they grew up. Growing up in a less racially diverse neighborhood apparently significantly and negatively affected white students' openness to diversity before college. The effect supports the hypothesis, prominent in studies of intergroup contact (e.g., Pettigrew, 1986; Stephan, 1987), that prior proximity to racial minorities led to more favorable attitudes toward diversity among white college students. Because the measure of neighborhood racial composition might reflect students' *attitudes* toward racial minorities as well as demographics, however (i.e., more prejudiced students are more likely to perceive that "their neighborhood" ends before residences of persons of color are reached), the hypothesis is not supported unambiguously. Clearly, though, the different effects of parents' education and family income underscore the importance of *not* combining the two measures into a single scale of socioeconomic status in similar analyses of interracial attitudes, behavior, and perceptions.

The model indicates significant differences between men and women in openness to diversity before college, perhaps reflecting the less favorable attitudes toward diversity among "angry white men" in the broader society during the early 1990s. Further research is needed to determine the extent to which these attitudinal differences can be attributed to men and women entering different career tracks, as reflected, perhaps, by their declared major fields and degree

aspirations. Precollege attitudinal differences continued to have important behavioral consequences during the first two years of college, however. White students with more favorable attitudes toward diversity made friends with students of other races more often, discussed social issues such as equality and human rights with greater frequency, and perceived more racism toward minority students on campus—as a direct consequence of their attitude and an indirect consequence through their behavior.

White students who attended colleges or universities with fewer minority students made fewer friends of other races during their first year of college, indicating that attitude toward diversity *and* opportunity for interracial contact *both* had significant effects on interracial friendships. Although the absolute value of the standardized coefficient reflecting opportunity (.137) is greater than the one reflecting attitude (.102), this finding does not unambiguously contradict the conclusion by Hurtado, Dey, and Treviño (1994) that the pervasive lack of cross-race interaction on predominantly white campuses is primarily a function of the preferences of white students. The lower paths in the model suggest that choosing to attend a college with fewer minority students might have been influenced by attitudes toward minorities to some extent, although factors such as institutional selectivity, academic program availability and proximity to home must also be considered.

Similarly, definitions of interracial friendships are open to different interpretations. The measure does not reflect the duration or intimacy of the friendships. Moreover, perceptions of friendship might not necessarily be reciprocal in all cases. This ambiguity is apparent in the lack of statistical significance of the path from interracial friendships to perceived racism, which if significant would have reflected the generation of affective ties hypothesized as a mediating process in interracial awareness (Cook, 1984; Pettigrew, 1994).

The significant and positive direct path from the percentage of white undergraduates on campus to white students' perceptions of racism toward minority students on campus ($p<.001$) indicates that white students in general perceived more racism toward minority students at colleges

with fewer minority undergraduates. The path might reflect a measure of institutional racism (e.g., Chesler & Crowfoot, 1989), independent of individual students' attitudes toward diversity. Indeed, correlations of measures of students' openness to diversity and the percentage of white undergraduates on campus were not statistically significant, yet each measure had highly significant effects on perceived racism when controlling for the other. Studying the attitudinal and behavioral antecedents *and* consequences of different perceptions of racism among students at a greater number of institutions (and including more structural variables such as measures of the proportions of minority students, faculty, and administrators, and measures of various policies and practices) might clarify the antecedents and consequences of the measure of undergraduate racial mix.

Although one might conclude that the study has resulted in as much ambiguity as clarity, some important implications for policy and practice are evident. Higher education in the U.S. has traditionally been charged with shaping students' attitudes and values and facilitating their psychosocial development (Pascarella & Terenzini, 1991). In his introduction to the reissued version of *The Impact of College on Students* (Feldman & Newcomb, 1994), Feldman suggested that students who are open to new and different ideas, values, and attitudes and who are ready to orient themselves to others and be influenced by them are more likely to experience a greater impact from college. He noted, however, that little recent research has been done to ground this proposition empirically. This study helps to fill that gap by showing how students' openness to diversity affects their behavior and perceptions during college.

Table 6 indicates that 45.5% (160) of the 352 students who were high in openness to diversity before starting college (scale score > 4) perceived high levels of racism (scale score > 3.25) toward minority students on campus during their second year. Only 25.6% (90) of those 352 students perceived low levels of racism (scale score < 2.75). Among students low in openness to diversity before college, the pattern was reversed. Only 28.6% (61) of those 213

students (scale score < 4) perceived high levels of racism. In contrast, 37.1% (79) of them perceived low levels.

Place Tables 6 & 7 about here

Some consequences of white students' attitudes toward diversity on campus are clear from the model. Students who were more open to diversity before college made friends with more students of other races and discussed social issues such as equality and human rights with greater frequency during their first year. A great deal of research suggests that intergroup contact alone will not result in more favorable attitudes toward minority group members (e.g., Hewstone & Brown, 1986; Stephan, 1987). This study underscores the importance of planning and implementing programs that have the potential to develop more favorable attitudes toward diversity among white students, especially among certain subgroups of students. Men and students whose parents were relatively less educated apparently can benefit greatly from more favorable attitudes toward diversity and from discussing social issues with greater frequency.

Finally, the study suggests that faculty and administrators at predominantly white institutions (particularly at those with relatively few minority students) continually assess which policies and practices lead to greater perceptions of racism and implement changes based on those assessments. Table 7 indicates that the 269 white students in the sample on campuses with 90% or more white undergraduates perceived significantly more racism toward minority students than the students on other campuses. Indeed, only 24.5% (66) of them perceived low levels of racism on campus.

In conclusion, the study indicates that further research is needed to understand the influences on and effects of attitudes toward diversity, intergroup friendships, and discussions of social issues on greater numbers of campuses. Future investigations might employ more differentiated measures of perceptions of racism, intergroup friendships, and attitudes toward

diversity to help educators and policy makers better understand differences and similarities in perceptions of racism between majority and minority group members. Finally, more research is needed to assess the attitudinal and behavioral consequences of perceptions of racism among college students.

REFERENCES

Altbach, P. G. (1991). The racial dilemma in American higher education. In P. G. Altbach & K. Lomotey (Eds.), *The racial crisis in American higher education* (pp. 3-18). New York: State University of New York Press.

Arbona, C., & Novy, D. M. (1990). Noncognitive dimensions as predictors of college success among Black, Mexican-American, and White students. *Journal of College Student Development, 31*, 415-421.

Astin, A. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Personnel, 25*, 297-308.

Astin, A. (1993a). Diversity and multiculturalism on the campus: How are students affected? *Change, 25*, 44-49.

Astin, A. (1993b). *What matters in college: Four critical years revisited.* San Francisco: Jossey-Bass.

Cabrera, A. F., & Nora, A. (1994). College students' perceptions of prejudice and discrimination and their feelings of alienation: A construct validation approach. *Review of Education, Pedagogy and Cultural Studies, 16*(3-4), 387-409.

Chesler, M. A., & Crowfoot, J. (1989). *Racism in higher education: An organizational analysis.* Ann Arbor, MI: University of Michigan Center for Research on Social Organization.

Chickering, A. (1969). *Education and identity.* San Francisco: Jossey-Bass.

Cook, S. W. (1984). Cooperative interaction in multiethnic contexts. In N. Miller & M. Brewer, *Groups in contact: The psychology of desegregation* (pp. 156-186). New York: Academic Press.

Commission on Minority Participation in Education and American Life. (1988). *One-third of a nation.* Washington, DC: American Council on Education.

Ehrlich, H. J. (1992). *Campus ethnoviolence: A research review.* Baltimore, MD: National Institute Against Prejudice and Violence.

Farrell, W. C., Jr., & Jones, C. K. (1988). Recent racial incidents in higher education: A preliminary perspective. *The Urban Review, 20*(3), 211-233.

Feldman, K. A., & Newcomb, T. M. (1994). *The impact of college on students.* (Second edition). New Brunswick, NJ: Transaction.

Gaertner, S. L., & Dovidio, J. F. (1986). The aversive form of racism. In J. F. Dovidio & S. L. Gaertner (Eds.), *Prejudice, discrimination, and racism* (pp. 61-89). Orlando, FL: Academic Press.

Guimond, S., & Palmer, D. L. (1989). Education, academic program and intergroup attitudes. *Canadian Review of Sociology & Anthropology, 26*(2), 193-216.

Hewstone, M., & Brown, R. (1986). Contact is not enough: An intergroup perspective on the 'contact hypothesis'. In M. Hewstone & R. Brown (Eds.), *Contact and conflict in intergroup encounters* (pp. 1-44). Oxford, England: Basil Blackwell.

Hurtado, S. (1990). *Campus racial climates and educational outcomes.* University of California, Los Angeles. Unpublished doctoral dissertation.

Hurtado, S. (1992). The campus racial climate: Contexts for conflict. *Journal of Higher Education, 63*(5), 539-569.

Hurtado, S., Dey, E. L., & Treviño, J. G. (April, 1994). Exclusion or self-segregation? Interaction across racial/ethnic groups on college campuses. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

Hyun, M. (November, 1994). Helping promote racial understanding: Does it matter if you're black or white? Paper presented at the annual meeting of the Association for the Study of Higher Education, Tucson, AZ.

Jackman, M. R., & Crane, M. (1986). Some of my best friends are black . . .: Interracial friendship and whites' racial attitudes. *Public Opinion Quarterly, 50,* 459-486.

Jackman, M. R., & Muha, M. J. (1984). Education and intergroup attitudes: Moral enlightenment, superficial democratic commitment, or ideological refinement? *American Sociological Review, 49,* 751-769.

Kerr, C. (1991). Foreword. In P. G. Altbach & K. Lomotey (Eds.), *The racial crisis in American higher education* (pp. vii-x). New York: State University of New York Press.

Loo, C. M., & Rolison, G. (1986). Alienation of ethnic minority students at a predominantly white university. *Journal of Higher Education, 57*(1), 58-77.

McIver, J. P., & Carmines, E. G. (1981). *Unidimensional scaling.* Newbury Park, N.J.: Sage.

McNeilly, M. D., Anderson, N. B., Armstead, C., Clark, R., Corbett, M. O., Robinson, E. L., & Pieper, C. F. (in press). The perceived racism scale: A multidimensional assessment of the experience of white racism among African Americans. *Ethnicity and Disease.*

Milem, J. F. (1992). *The impact of college on students' racial attitudes and levels of racial awareness and acceptance.* University of California, Los Angeles. Unpublished doctoral dissertation.

Nettles, M. (1988). Factors related to black and white students' college performance. In M. T. Nettles (Ed.), *Toward Black undergraduate student equality in American higher education* (pp. 17-34). Westport, CT: Greenwood Press.

Nettles, M. T., Thoeny, A. R., & Gosman, E. J. (1986). Comparative and predictive analyses of Black and White students' college achievement and experiences. *Journal of Higher Education, 57*(3), 289-328.

Newcomb, T. M. (1962). Student peer-group influence. In N. Sanford (Ed.), *The American college: A psychological and social interpretation of the higher learning.* New York: John Wiley.

Pace, C. (1984). *Measuring the quality of college student experiences.* Higher Education Research Institute, Graduate School of Education, University of California at Los Angeles.

Pascarella, E. T., Edison, M., Nora, A., & Terenzini, P. T. (1994). Influences on students' openness to diversity and challenge in the first year of college. Unpublished manuscript. University of Illinois Chicago.

Pascarella, E. T., & Terenzini, P. T. (1991). *How college affects students: Findings and insights from twenty years of research.* San Francisco: Jossey-Bass.

Pettigrew, T. F. (1986). The contact hypothesis revisited. In M. Hewstone & R. Brown (Eds.), *Contact and conflict in intergroup encounters* (pp. 169-195). Oxford, England: Basil Blackwell.

Pettigrew, T. F. (1994). The deprovincialization hypothesis: Generalized intergroup contact effects on prejudice. Unpublished manuscript. University of California Santa Cruz.

Sidanius, J., Pratto, F., Martin, M., Stallworth, L. M., (1991). Consensual racism and career track: Some implications of social dominance theory. *Political Psychology, 12*(4), 691-721.

Sigelman, L, & Welch, S. (1991). *Black Americans' views of racial inequality: The dream deferred.* Cambridge, England: Cambridge University Press.

Sigelman, L., & Welch, S. (1993). The contact hypothesis revisited: Black-white interaction and positive racial attitudes. *Social Forces, 71*(3), 781-795.

Smith, D. G. (1989). The challenge of diversity: Involvement or alienation in the academy? In J. D. Fife (Ed.), *ASHE-ERIC Higher Education Reports* (Number 5). Washington, D. C.: George Washington University Press.

Steeh, C., & Schuman, H. (1992). Young white adults: Did racial attitudes change in the 1980s? *American Journal of Sociology, 98*(2), 340-367.

Steele, S. (February, 1989). The recoloring of campus life: Student racism, academic pluralism, and the end of an American dream. *Harper's Magazine, 278.*

Stephan, W. G. (1987). The contact hypothesis in intergroup relations. In C. Hendrick (Ed.), *Review of Personality and Social Psychology.* Vol. 9. *Group processes and intergroup relations* (pp. 13-40). Newbury Park, CA: Sage.

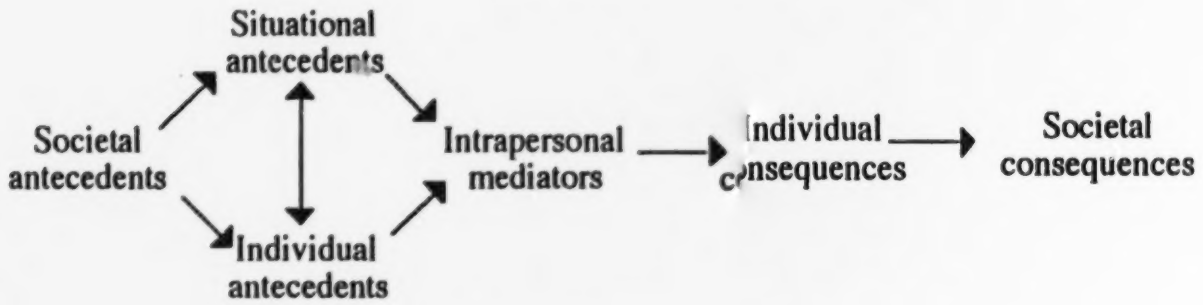
Taylor, M. C. (in press). White backlash to affirmative action: Peril or myth? *Social Forces.*

Tinto, V. (1987). *Leaving college: Rethinking the causes and cures of student attrition.* Chicago: University of Chicago Press.

Weidman, J. (1989). Undergraduate socialization: A conceptual approach. In J. Smart (Ed.), *Higher education: Handbook of theory and research* (Vol. 5). New York: Agathon.

Figure 1

Conceptual Model of the Intergroup Contact Hypothesis



Note. Adapted from Stephan, 1987, p. 22.

Table 1

Targeted and Actual Student Participation

Students	N	% of Preceding Category	% of Eligible Students
Eligible	11,975		100.0
Targeted	2,515	21.0	21.0
Participated Fall 1992	2,137	85.0	17.8
Participated Spring 1993	1,604	75.1	13.4
Participated Spring 1994	1,200	74.8	10.0

Table 2

Spring 1994 Participants by Race or Ethnicity

Race or ethnicity	N	%
African American/Black	48	4.0
Asian American	118	9.8
Hispanic/Chicano/Latino	92	7.7
White	867	72.2
Other	25	2.1
Prefer not to respond/Missing data	50	4.2
Total	1,200	100.0

Table 3

Variables in Model of Influences on White Students' Perceptions of Racism toward Minority Students on Campus

Date/Variable	Mean	*SD*
Fall 1992 (Precollege)		
Sex: 0 = female (n=551), 1 = male (n=316).		
Parents' Education: Sum of mother's and father's education on a 9-point scale, where 1 = grammar school or less and 9 = professional degree.	11.31	3.36
Family's Income: 14-point scale, where 1 = less than $6,000 and 14 = $150,000 or more.	9.16[a]	2.80
Racial Composition of Neighborhood: Single-item rating on a 5-point scale reflecting the racial composition of the neighborhood where students grew up, where 1 = all persons of color and 5 = all white.	4.54	.74
Racial Composition of College: Percentage of white undergraduates at the college or university that students are attending.	84.45	10.18
Openness to Diversity: 2-item scale reflecting students' attitude toward diversity before college (see Table 4). Scored on a 5-point scale where 1 = strongly disagree and 5 = strongly agree.	4.10	.73
Spring 1993 (After first year of college)		
Interracial Friendships: Single-item rating on a 4-point scale reflecting the frequency with which students made friends with students of a different race during the 1992-1993 academic year, where 1 = never and 4 = very often.	2.62	.81
Discussing Social Issues: 2-item scale reflecting students' behavior during the 1992-1993 academic year (see Table 4). Scored on a 4-point scale where 1 = never and 4 = very often.	2.53	.74
Spring 1994 (After second year of college)		
Perceptions of Racism: 4-item scale reflecting students' perceptions at the end of the 1993-1994 academic year (see Table 4). Scored on a 5-point scale where 1 = strongly disagree and 5 = strongly agree.	3.06	.87

[a]9 = $40,000 to $49,999.

Table 4

Item Factor Loadings for Scales

Scale/Item	Loading[a]
Perceptions of Racism[b,c]	
Few if any students at this college are prejudiced against minority students.	.84
I have never observed discriminatory words, behaviors, or gestures directed at minority students.	.81
One seldom hears negative words about minorities while attending classes.	.75
Instructors treat all students the same regardless of race.	.75
Openness to Diversity (α = .81)	
Contact with individuals whose background (e.g., race, national origin, sexual preference) is different from my own is an essential part of my college education.	.91
Learning about people from different cultures is a very important part of a college education.	.90
Discussing Social Issues (α = .65)	
In conversations with other students at this college during the current school year, how often have you talked about each of the following?	
The economy—employment, wealth, poverty, debt, trade, etc.	.88
Major social problems such as peace, human rights, equality, justice.	.83

[a]No item loaded above .20 on any other scale.

[b]All items in this scale were reverse coded.

[c]Reliability:

Group	α
African American	.83
Asian American	.80
Hispanic or Latino	.82
White	.81

Table 5

Between-Group Differences[a] in Perceptions of Racism toward Minority Students on Campus

	1 African American	2 Asian American	3 Hispanic or Latino	4 White	N	Mean	*SD*
1	_				48	3.54	.90
2	3.46***	_			118	3.02	.84
3	2.94**	-.34	_		92	3.06	.95
4	3.63***	-.47	.04	_	867	3.06	.87

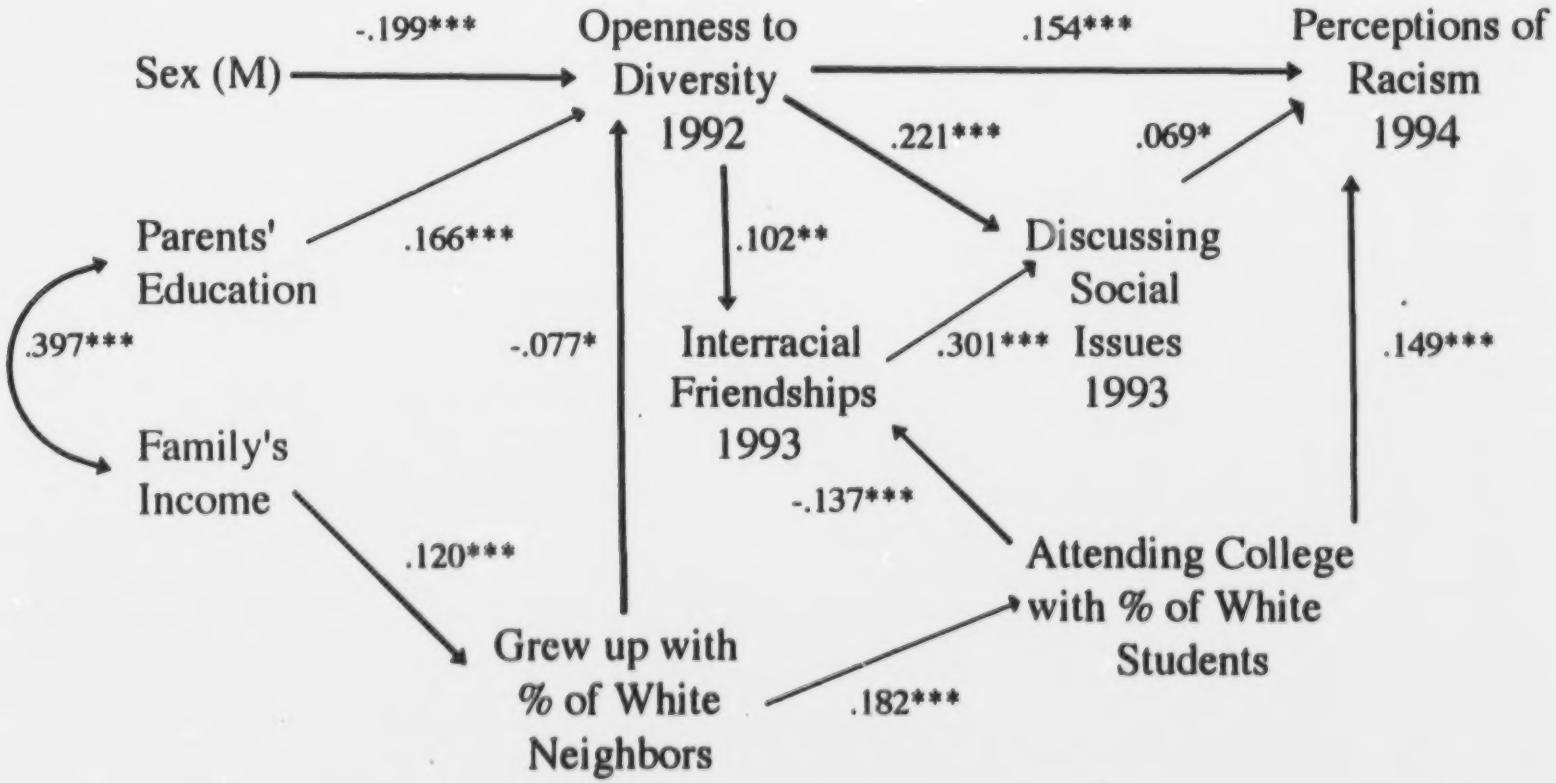
[a]Differences reported are *t*- statistics.

** $p<.01$

*** $p<.001$

Figure 2

Model of Influences on White Students' Perceptions of Racism toward Minority Students on Campus



Note. Statistically significant ($p<.05$) standardized coefficients interpreted as direct effects indicated.

* $p<.05$
** $p<.01$
*** $p<.001$

Table 6

Perceptions of Racism toward Minority Students on Campus among White Students by Openness to Diversity: Percentages.

		OPENNESS TO DIVERSITY		
		Low	Mid	High
PERCEPTIONS OF RACISM	High	28.6	34.8	45.5
	Mid	34.3	33.4	29.0
	Low	37.1	31.8	25.6
Total %		100.0	100.0	100.0
Sample size		213	302	352

Table 7

Perceptions of Racism toward Minority Students on Campus among White Students by Percentage of White Undergraduates on Campus: Percentages.

		WHITE UNDERGRADUATES ON CAMPUS		
		< 80%	80%-90%	> 90%
PERCEPTIONS OF RACISM	High	35.6	34.0	44.2
	Mid	26.9	35.1	31.2
	Low	37.5	30.9	24.5
Total %		100.0	100.0	100.0
Sample size:	Students	216	382	269
	Institutions	4	4	3